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(54) Title: METHOD FOR DETERMINING POSITIONS OF TARGETS BY BISTATIC MEASUREMENTS USING SIGNALS SCATTERED BY THE TARGETS

(57) Abstract: The present invention relates to a method for determining the positions of targets by bistatic measurements using signals scattered by the targets. Also the velocities of the targets can be determined. The range of the transmitters is selected so that a target at an arbitrary point can be measured by scattering in the target by at least four cooperating measuring facilities. First the targets are associated. This occurs by calculating, in two independent ways, two sets of sums of distances between transmission points and targets and, respectively, targets and reception points. Subsequently, said two sums are sorted with respect to distance, compared with each other, and the sums that correspond with each other, while considering a margin of error that has been determined in advance, are stated to correspond to conceivable targets. The association of targets is improved and completed by corresponding calculations being carried out for Doppler velocities. Finally, the positions of the targets are calculated from a system of equations for the bistatically measured distances.